PCT/EP2002/012592

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PCT 1744-085/mu	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/EP2002/012592	International filing date (*day/month/year*) 11 November 2002 (11.11.2002)	Priority date (*day/month/year*) 08 January 2002 (08.01.2002)
International Patent Classification (IPC) or national classification and IPC D01D 5/088, 5/06, D01F 2/00		
Applicant ZIMMER AKTIENGESELLSCHAFT		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 8 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand	Date of completion of this report
20 February 2003 (20.02.2003)	22 December 2003 (22.12.2003)
Name and mailing address of the IPEA/EP Facsimile No.	Authorized officer Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/EP2002/012592

I. Basis of the report

1. With regard to the **elements** of the international application:*

☐ the international application as originally filed

☒ the description:

pages 1,3,4,7-14,16-21,24, as originally filed
pages _____, filed with the demand
pages 2,5a,5b,6,15,22,23, filed with the letter of 26 November 2003 (26.11.2003)

☒ the claims:

pages 2-26, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages 1,27, filed with the letter of 26 November 2003 (26.11.2003)

☒ the drawings:

pages 1/3-3/3, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

☐ the sequence listing part of the description:

pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).

☐ the language of publication of the international application (under Rule 48.3(b)).

☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* *Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).*

** *Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.*

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/E[redacted]2/12592

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-27	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1,27	NO
Industrial applicability (IA)	Claims	1-27	YES
	Claims		NO

2. Citations and explanations

Reference is made to the following documents:

D1: WO-A-9428218
D2: WO-A-9617118
D3: WO-A-0006813

1. PCT Article 6

The application does not meet the requirements of PCT Article 6, because the independent claims 1 and 27 are not clear. The reasons are as follows.

An independent claim should clearly specify all of the essential features needed to define the invention except insofar as such features are implied by the generic terms used (see PCT International Preliminary Examination Guidelines, Chapter III, paragraph 4.4, PCT Gazette Special Issue dated 29 October 1998).

The problem addressed by the invention is to provide a device and a method whereby, for little design effort, long air-gap lengths can be combined with high spinning density and a high level of spinning reliability can

simultaneously be achieved (see page 5, last paragraph). More particularly, the problem is to provide a device and a method for which the gas requirement can be reduced and where the risk of conglutinations is very slight.

According to the description this problem is solved by providing not only a turbulent cooling gas stream from the blowing device but also **a high cooling gas stream velocity** (see page 6, paragraphs 1-3 and 5 to page 7, line 2), i.e. a flow velocity of at least 30 m/s (see page 7, paragraph 3). This feature is missing from claims 1 and 27 and should be incorporated therein.

Attention is, moreover, drawn to the fact that the examples referred to in the application also show quite clearly that both features, i.e. a turbulent gas stream with a high Reynolds number (see also below (*)) and a high flow velocity, are required in order to achieve the technical effects (see pages 19 to 24, especially table 1).

In addition, claims 1 and 27 attempt to define the invention in terms of the result to be achieved, i.e. the cooling gas stream is turbulent. Such claims can be allowed only under the conditions referred to in the PCT International Preliminary Examination Guidelines, Chapter III, paragraph 4.7, PCT Gazette Special Issue dated 29 October 1998).

(*) The term "turbulent" is very vague and should be quantified in claims 1 and 27, i.e. by means of the Reynolds number (see also page 19, paragraph 2).

2. **PCT Article 33(2) and (3)**

The present application does not satisfy the requirements of PCT Article 33(3) because the subject matter of the following claims does not appear to involve an inventive step.

Claim 1

D1 and D2 disclose a device for producing endless shaped bodies from a spinning solution containing cellulose, water and tertiary amine oxide, said bodies having all the features of the first part of claim 1 (see D1: page 1, line 30 to page 2, line 25 + page 4, line 7 to page 5, line 3; and D2: page 2, third paragraph to page 3, first paragraph + page 6, first paragraph).

The subject matter of claim 1 differs from D1 (or D2) in that the cooling gas stream is turbulent at the outlet from the blowing device.

As explained above, this feature is very vague.

In addition, however, this feature has already been used for the same purpose in a similar device (see D3). D3 discloses a device for quenching filaments, e.g. polymer filaments, which are produced for the manufacture of nonwovens, in which device **a turbulent gas stream** is used for quenching (D3: page 2, paragraphs 2-3).

If a person skilled in the art wishes to achieve the same purpose with a device as defined in D1, he can easily apply the features to the subject matter of D1 with equivalent effect. He would thus arrive at a device as defined in claim 1 without being inventive.

The subject matter of claim 1 does not therefore involve an inventive step (PCT Article 33(3)).

The same applies to **Claim 27**.

Dependent claims 2 to 26

No document appears to disclose or propose a device and a method as defined in claims 1 and 27 and additionally with a Reynolds number of at least 3000 (see claim 3) and a cooling stream velocity of at least 30 m/s.

For example, the cooling stream velocity in D2 is only 0.8 m/s and is not turbulent. In D3 the turbulent cooling gas stream has a velocity of 50-500 feet per minute (0.254 to 2.54 m/s), i.e. much less than in the present application.

3. PCT Articles 19(2) and 34(2)(b)

The amendments submitted with the letter of 26 November 2003 introduce substantive matter which, contrary to PCT Articles 19(2) and 34(2)(b), goes beyond the disclosure in the application as filed. The amendments concerned are on page 6' as follows:

"cool blowing carried out at high velocity" has been deleted from page 6, last paragraph.